

Application Serial No. 10/549,712
Attorney Docket No. GQJ.100 US
Supplemental Response to Response mailed April 22, 2008

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LISTING OF CLAIMS:

1. (Currently Amended) Apparatus for automatically dispensing a fluid comprising:
 - a) a container adapted to carry a supply of fluid;
 - b) a valve connected to said container, wherein actuation of said valve dispenses the fluid,
 - c) an apparatus position indicator ~~proximately associated with said container;~~
 - d) an object sensor positioned near said valve, wherein said object sensor monitors an area below where said valve dispenses, wherein upon detection of an object, said valve dispenses fluid; and
 - e) wherein ~~[[the]]~~ during initial positioning of the apparatus in an area, ~~activates said apparatus position indicator, such that said apparatus position indicator generates~~ provides an appropriate signal until said indication when said object sensor is properly positioned in said area.
2. (Previously Presented) The apparatus according to Claim 1, wherein said apparatus position indicator includes at least one illumination device that illuminates when said object sensor is properly positioned in said area.
3. (Previously Presented) The apparatus according to Claim 1, wherein said apparatus position indicator includes at least one illumination device that illuminates until said object sensor is properly positioned in said area.
4. (Currently Amended) A method for installing an automated fluid dispenser, comprising:
 - a) providing a fluid dispenser, ~~for carrying a container, a valve connected to said container wherein actuation of said valve dispenses a fluid carried by said container when installed,~~ an apparatus position indicator carried by said fluid dispenser, and an object sensor ~~positioned near said valve carried by said fluid dispenser;~~
 - b) connecting a power source to at least said apparatus position indicator and said object sensor;
 - c) positioning said fluid dispenser in at least one prospective mounting location;

Application Serial No. 10/549,712
Attorney Docket No. GOJ 100.US
Supplemental Response to Response mailed April 22, 2008

- d) emitting from said object sensor a test signal to ensure proper positioning of said fluid dispenser; and
 - e) if necessary, repeating steps c) and d) until said apparatus position indicator provides a ~~positive~~ an indication of said fluid dispenser's proper placement.
5. (Currently Amended) The method according to Claim 4, further comprising:
marking a position of said fluid dispenser's ~~[[positive]]~~ proper placement; and
permanently installing said fluid dispenser at said position.
6. (Currently Amended) The method according to Claim ~~[[5]]~~ 4, further comprising:
installing ~~[[said]]~~ a container in said fluid dispenser.
7. (Currently Amended) Apparatus for dispensing a measured quantity of fluid, comprising:
a) an object sensor;
b) a container carrying a supply of fluid;
c) a dispense mechanism coupled to said container to control an amount of fluid to be dispensed,
d) a pump actuator mechanism coupled to said object sensor, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of fluid;
e) a processor coupled to said object sensor and said pump actuator to control at least one operating feature maintained thereby; and
f) a hidden switch carried by ~~[[said container]]~~ the apparatus, wherein actuation of said hidden switch places said processor in an operational feature mode that enables modification of said at least one operating feature.
8. (Original) The apparatus accordingly to Claim 7, further comprising:
at least one illuminating indicia connected to said processor wherein entry into said operational feature mode is indicated by said at least one illuminating indicia.
9. (Original) The apparatus according to Claim 8, further comprising:

Application Serial No. 10/549,712
Attorney Docket No. GQJ.100.US
Supplemental Response to Response mailed April 22, 2018

at least two lights, wherein said lights are sequentially illuminated to indicate where an object should be placed for receipt of the fluid; and
wherein entry into said operational feature mode allows enablement or disablement of said at least two lights.

10. (Currently Amended) The apparatus according to Claim [[8]] Z, wherein entry into said operational feature mode allows selection of a number of cycles of said pump actuator mechanism to control an amount of dispensed fluid upon detection of an object.
11. (Currently Amended) The apparatus according to Claim [[8]] Z, wherein entry into said operational feature mode allows selection of a size of said dispense mechanism.
12. (Currently Amended) The apparatus according to Claim [[8]] Z, further comprising:
a low level indicator connected to said processor,
wherein entry into said operational feature mode allows selection of a number of cycles of said pump actuator mechanism to control an amount of dispensed fluid upon detection of an object,
wherein entry into said operational feature allows selection of a size of said dispense mechanism, and
wherein said processor calculates when the fluid in a given size of container will be depleted to a predetermined level based upon said number of cycles and size of said dispense mechanism.
13. (Currently Amended) The apparatus according to Claim [[8]] Z, further comprising:
a timer connected to said processor, said timer initiated upon actuation of said hidden switch to allow for servicing of the apparatus.
14. (Original) The apparatus according to Claim 13, wherein said object sensor is disabled while said timer is running.
15. (Original) The apparatus according to Claim 14, wherein said object sensor is re-enabled upon either expiration of said timer or re-actuation of said hidden switch.

Application Serial No. 10/549,712
Attorney Docket No. G01 100.US
Supplemental Response to Response mailed April 22, 2008

- 16 (Currently Amended) Apparatus for dispensing a measured quantity of fluid, comprising:
- a) a container carrying a supply of fluid;
 - b) a dispense mechanism coupled to said container to control an amount of fluid to be dispensed;
 - c) a pump actuator mechanism coupled to an object sensor, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of fluid; and
 - d) ~~a timer having a predetermined period of time, said timer associated with said dispense mechanism, said timer actuated upon dispensing of said fluid from said dispense mechanism, wherein said dispense mechanism is disabled if a predetermined number of dispense events occur within said predetermined period of time~~ said timer being utilized to disable said dispense mechanism to mitigate excessive dispensing of the fluid.
17. (Currently Amended) The apparatus according to claim [[16]] 27, wherein said dispense mechanism is re-enabled upon completion of a second period of time.
18. (Currently Amended) The apparatus according to claim [[17]] 27, wherein said predetermined period of time is about 15 seconds ~~and said predetermined number of dispense events is about 5.~~
19. (Original) The apparatus according to claim 17, wherein said second period of time is about 45 seconds.
20. (Canceled)
21. (Currently Amended) Apparatus for dispensing a measured quantity of fluid, comprising:
- an object sensor which generates an object signal upon detection of an object;
 - a container carrying a supply of fluid;
 - a dispense mechanism coupled to said container to control an amount of fluid to be dispensed;

Application Serial No. 10/549,712
 Attorney Docket No. GOJ 100.US
 Supplemental Response to Response mailed April 22, 2008

a pump actuator mechanism ~~coupled to said object sensor~~, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of fluid and wherein said pump actuator mechanism converts rotational motion to linear motion to cycle said dispense mechanism;

a control circuit having a processor to receive said object signal, wherein said processor generates a cycle signal received by said pump actuator mechanism to actuate said dispense mechanism,

~~a motor carried by~~ said pump actuator mechanism having a motor for cycling said pump actuator mechanism, wherein ~~a motor drive input signal is generated by said processor~~ said motor having a drive input; and

a ~~motor position~~ sensor coupled to said pump actuator mechanism to detect an end of dispense cycle, ~~said motor sensor detecting a position of said motor and~~ generate a brake input signal when said motor position end of dispense cycle is detected;

wherein generation of said brake input signal connects said motor drive input signal to ground to effectively brake said ~~motor pump actuator mechanism~~.

22. (Currently Amended) Apparatus for dispensing a measured quantity of fluid, comprising:

an object sensor which generates an object signal upon detection of an object;
 a container carrying a supply of fluid;

a dispense mechanism coupled to said container to control an amount of fluid to be dispensed;

a pump actuator mechanism ~~coupled to said object sensor~~, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of fluid and wherein said pump actuator mechanism converts rotational motion to linear motion to cycle said dispense mechanism;

a control circuit having a processor to receive said object signal, wherein said processor generates a cycle signal received by said pump actuator mechanism to actuate said dispense mechanism[[:]]

~~a motor carried by said pump actuator mechanism, wherein a motor drive signal is generated by said processor to actuate said~~ cycle signal is used to drive a motor and said pump actuator mechanism; and

an overload circuit carried by said control circuit, wherein if said overload circuit detects a voltage value in excess of a predetermined threshold, an overload signal is generated and received by said processor which in turn stops generation of said motor drive signal.

23. (Currently Amended) Apparatus for dispensing a measured quantity of fluid, comprising:

an object sensor which generates an object signal upon detection of an object;
a container carrying a supply of fluid;

a dispense mechanism coupled to said container to control an amount of fluid to be dispensed;

a pump actuator mechanism ~~coupled to said object sensor~~, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of fluid and wherein said pump actuator mechanism converts rotational motion to linear motion to cycle said dispense mechanism; and

a control circuit having a processor to receive said object signal, said control circuit comprising a sensor circuit for ~~[[carrying]]~~ said object sensor, and a systems circuit for ~~[[carrying]]~~ said processor, wherein said sensor circuit and said systems circuit are maintained on their own respective circuit boards to minimize interference therebetween, and wherein said processor generates a cycle signal received by said pump actuator mechanism to actuate said dispense mechanism.

24. (Original) The apparatus according to said Claim 23, wherein each said respective circuit board functions as a shielded backplane.

25. (Previously Presented) An apparatus for dispensing a measured quantity of fluid comprising:

a housing adapted to carry a container that carries a supply of fluid;

a dispense mechanism adapted to be coupled to the container to control an amount of fluid to be dispensed;

Application Serial No. 10/549,712
Attorney Docket No. GOJ.100 US
Supplemental Response to Response mailed April 22, 2008

an object sensor carried by said housing;

a pump actuator mechanism coupled to said object sensor, wherein detection of an object by said object sensor cycles said pump actuator mechanism to engage said dispense mechanism which dispenses a measured quantity of fluid, wherein said pump actuator mechanism shuts down if said object sensor detects excessive use.

26. (Previously Presented) The apparatus according to claim 25, further comprising:
a dispense timer having a dispense time period; and
a disable timer having a disable time period, wherein both said dispense timer and said disable timer are associated with said pump actuator mechanism such that during said dispense time period if a predetermined number of dispense events are detected, said pump actuator mechanism is disabled for said disable time period.
27. (New) The apparatus according to claim 16, wherein the dispense mechanism is disabled after a predetermined time period if a predetermined number of dispense events occur within said predetermined period of time.
28. (New) The apparatus according to claim 1, wherein said apparatus position indicator provides an indication when said object sensor is properly positioned in said area and a different indication when said object sensor is improperly positioned.
29. (New) The apparatus according to claim 7, wherein entry into said operational feature mode allows a modification associated with the type of fluid in said container.